ER Site No. 93: Madera Canyon Rocket Launcher Pads

ADS: 1333
Operable Unit: Canyons Test Area

Primary Contact: Dick Fate
Office Phone: 284-2568

Site History

ER Site 93 consists of three separate rocket launcher pads, designated 93A, 93B, and 93C. ER Sites 93B and 93C are actually located on lands withdrawn from the USFS by the USAF and permitted to the DOE. However, they will be covered in this section, along with ER Site 93A, due to their similar functions and characteristics and because the ER Project has grouped them as one site (ER Site 93A, B, C) on the HSWA permit. Based on current archival information, all of the rocket launcher pads were used as platforms for shoulder-fired missiles and portable rocket launching vehicles. However, it is not possible to distinguish the particular historical operations associated with each site based on available records. Therefore, the tests conducted at the ER Site 93A, 93B, and 93C will be discussed following a summary of construction activities.

Based on available historical aerial photographs, the three launcher pads were constructed between June 1975 and September 1982. Initially, each site consisted of a small concrete pad, used as a platform for shoulder-fired missiles and to stage the rocket launcher for firing. The area surrounding each pad was graded, possibly to stage heavy equipment during construction of the pad or to park monitoring equipment during the rocket launches. There are no other structures or visible activities in the historical aerial photographs. The physical characteristics of each pad are identified as follows:

- ER Site 93A consists of a 14-ft by 36-ft concrete pad, a concrete bunker box approximately 7 ft by 7 ft by 8 ft that is open to the northwest, and a graded area. The concrete bunker box was placed on the eastern portion of the concrete pad between 1985 and 1991. The bunker box may have been used to house personnel and/or equipment when rockets were fired.
- ER Site 93B consists of a 12-ft by 35-ft concrete pad and six 35- to 40-ft-high wooden poles. The wooden poles were placed southeast of the concrete pad sometime after 1983. These poles may have held telemetry equipment used to monitor and track the flight path of the rockets.

- ER Site 93C consists of a 15-ft by 35-ft concrete pad. A shallow exploratory pit and a mine shaft with associated tailings are located near the pad, but these features are not associated with ER Site 93C activities.

From 1979 through 1989, the ER Site 93A, B, and C pads were used by the DoD to launch approximately 400 guided missiles or rockets at targets suspended from the southern aerial cable at ER Site 81 (New Aerial Cable Site). Guided missiles fired from ER Site 93 were conventional weapons consisting of shoulder-fired Red-eyes, Stingers, and SA-7s. The missiles contained a booster and main rocket motor. The boosters contained less than one-half lb of rocket propellant to launch the rocket several hundred feet away from the individual firing the missile, at which point the main rocket motor engaged to propel the missile to its target. HVAR and Zuni rockets also were fired for telemetry studies. The first 20 missiles launched reportedly had explosive warheads, all of which detonated on impact. Approximately 24 missiles have been fired since 1990. The number of missiles or rockets fired from each of the individual pads is unknown, but each pad was used as a launch site for shoulder-fired missiles and portable rocket launchers. There is no launch debris associated with any of the ER Site 93 launch pads.

The missile flight path is along a slightly northwest to southeast line extending from the rocket launcher pads toward the impact area in Sol se Mete Canyon. The impact area lies southeast of ER Site 81. Flight path lengths from the three launcher pads to the impact area are approximately 2.6 mi (93A), 1.8 mi (93B), and 1.5 mi (93C). Recovery of missile and rocket motor components from the impact area was never attempted, as the rocket propellant was burned in flight and the missiles containing warheads detonated on impact. Debris found in the impact area in the southeast corner of ER Site 81 includes metal shrapnel, electrical components, rubber rings, and plastic insulation. No rocket propellant or UXO/HE were found during a UXO/HE survey of the site and impact area.

Constituents of Concern

There are no known contaminants of concern.

Current Hazards

There are no current hazards at this site related to contamination of the surface or subsurface soils. There are no structures or stored materials that remain at the site that could pose a potential hazard.

Current Status of Work

An administrative NFA proposal was submitted to the EPA in May 1995. This administrative NFA was rejected and confirmatory sampling was conducted in the spring of 1996. A confirmatory sampling NFA proposal was submitted in August 1996. The site was deemed acceptable for NFA in February 1998. The NFA was approved by NMED in July 2000 after completing the public review and permit modification process.

Future Work Planned

No future work is planned.

Waste Volume Estimated/Generated

No waste has been generated at this site.

Information for ER Site 93 was last updated Jan 22, 2003.